

## INFORMATION DISCLOSURE CITATION

Attorney Docket No.: GC819-2-US/B	Serial No.: 10/576,331
First Named Inventor: Jones, Brian E. et al.,	Examiner: Not yet assigned
Filing Date: July 18, 2007	Art Unit: 1632
Page 1 of 7	Date of this Submission: August 18, 2008

## US PATENT DOCUMENTS

Examiner's Initial	Document Number	Publication or Filing Date	Name of Applicant or Patentee	Class	Sub-Class	Filing Date
A1	09/554,992	05-23-00	Schellenberger, Volker			
A2	09/699,250	02-05-02	Caldwell, Robert et al.			
A3	09/927,161	12-05-02	Diaz-Torres, Maria R. et al.			
A4	10/804,785	03-19-04	Goedegebuur, Rozenlaan			
A5	3,840,433	10-08-74	Aunstrup, Knud et al.			
A6	3,986,926	10-19-76	Monshelmer, Rolf et al.			
A7	4,430,243	02-07-84	Bragg, Charles D.			
A8	4,435,307	03-06-84	Barbesgaard, Peder O. et al.			
A9	4,533,359	08-06-85	Kondo, Takashi et al.			
A10	4,683,195	07-28-87	Mullis, Kary B. et al.			
A11	4,965,188	10-23-90	Mullis, Kary B. et al.			
A12	4,977,252	12-11-90	Chiu, Chung-Wai			
A13	5,147,642	09-15-92	Lotz, Andreas et al.			
A14	5,284,366	11-23-93	Ferrari, Eugenio et al.			
A15	5,314,692	05-24-94	Haarasilta, Asko N.O. et al.			
A16	5,322,770	06-21-94	Gelfand, David H.			
A17	5,324,653	06-28-94	Van Eekelen, Christiaan et al.			
A18	5,340,735	08-23-94	Christianson, Teresa et al.			
A19	5,354,559	10-11-94	Morehouse, Alpha L.			
A20	5,364,770	11-15-94	Berka, Randy M. et al.			
A21	5,401,657	03-28-95	Jones, Brian et al.			
A22	5,486,303	01-23-96	Capeci, Scott W. et al.			
A23	5,489,392	02-06-96	Capeci, Scott W. et al.			
A24	5,500,364	03-19-96	Christianson, Teresa et al.			
A25	5,516,448	05-14-96	Capeci, Scott W. et al.			
A26	5,565,422	10-15-96	Del Greco, Angela G.			
A27	5,569,645	10-29-96	Dinniwel, Alan R. et al.			
A28	5,574,005	11-12-96	Welch, Robert G. et al.			
A29	5,576,282	11-19-96	Miracle, Gregory et al.			

Examiner	Date Considered
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	
PTO-1449	

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Page 2 of 7	Date of this Submission: August 18, 2008

Examiner's Initial	Document Number	Publication or Filing Date	Name of Applicant or Patentee	Class	Sub-Class	Filing Date
A30	5,595,967	01-21-97	Miracle, Gregory et al.			
A31	5,597,936	01-28-97	Perkins, Christopher M.			
A32	5,612,055	03-18-97	Bedford, Michael R. et al.			
A33	5,646,101	07-08-97	MacBeath, Fiona, Susan			
A34	5,646,028	07-08-97	Leigh, et al.			
A35	5,686,014	11-11-97	Bailely, Gerard M.A. et al.			
A36	5,691,297	11-25-97	Nassano, David Robert et al.			
A37	5,695,679	12-09-97	Christie, Julie Ann et al.			
A38	5,698,504	12-16-97	Christie, Julie Ann et al.			
A39	5,700,676	12-23-97	Bott, Richard Ray et al.			
A40	5,705,464	01-06-98	Scheper, Wm. Michael et al.			
A41	5,710,115	01-20-98	Patel, Rashesh Naresh et al.			
A42	5,795,764	08-18-98	Christgau, Stephan et al.			
A43	5,801,039	09-01-98	Maurer, Karl-Heinz et al.			
A44	5,855,625	01-05-99	Maurer, Karl-Heinz et al.			
A45	5,874,276	02-23-99	Fowler, Timothy et al.			
A46	5,879,584	03-09-99	Bianchetti, Giulia Ottavia et al.			
A47	5,935,826	08-10-99	Blue, Emily Keller et al.			
A48	5,955,340	09-21-99	Bott, Richard Ray et al.			
A49	5,965,384	10-12-99	Boel, Esper et al.			
A50	6,132,970	10-17-00	Stemmer, Willem P.C.			
A51	6,225,464	05-01-01	Hiler, George Douglas et al.			
A52	6,287,839	09-11-01	Jones, Brian E. et al.			
A53	6,306,812	10-23-01	Perkins, Christopher Mark et al.			
A54	6,312,936	11-06-01	Poulose, Ayrookaran J. et al.			
A55	6,326,348	12-04-01	Vinson, Phillip Kyle et al.			
A56	6,376,450	04-23-02	Ghosh, Chanchal et al.			
A57	6,440,991	08-27-02	Zhu, Tianmin et al.			
A58	6,465,235	10-15-02	Bott, Richard Ray et al.			

Examiner	Date Considered
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Page 3 of 7	Date of this Submission: August 18, 2008

Examiner's Initial	Document Number	Publication or Filing Date	Name of Applicant or Patentee	Class	Sub-Class	Filing Date
A59	6,482,628	11-19-02	Poulose, Ayrookaran J. et al.			
A60	6,566,114	05-20-03	Kauppinen, Markus Sakari et al.			
A61	6,602,842	08-05-03	Cuperus, Roelck A. et al.			
A62	6,605,458	08-12-03	Hansen, Peter Kamp et al.			
A63	6,610,642	08-26-03	Ghosh, Chancel Kumar et al.			

## FOREIGN PATENT DOCUMENTS

Examiner's Initials	Document Number	Publication or Grant Date	Name of Applicant or Patentee	Class	Sub-Class	Translation Yes/No
B1	EP 0214761 A2	03-18-84	Novo Industri A/S			
B2	EP 0218272 A1	04-15-84	Gist-Brocades N.V.			
B3	EP 0134 267 A1	03-20-85	Kurashiki Boseki Kabushiki Kaisha			
B4	EP 238023 A2	23-09-87	Novo Industri A/S			
B5	EP 258068 A2	02-03-88	Novo Industri A/S			
B6	EP 305216 A1	01-03-89	Novo Industri A/S			
B7	EP 331376 A2	06-09-89	Amano Pharmaceutical Co. Ltd.			
B8	EP 0 495 257 A1	22-07-92	The Procter & Gamble Company			
B9	EP 505920 A1	30-09-92	Rohm GmbH			
B10	EP 0305216B1	02-08-95	Boel, Esper et al.			
B11	EP 0 922 499 A2	16-06-99	Ing. Erich Pfeiffer GmbH			
B12	GB 1,296,839	22-11-72	Novo Terapeutisk Laboratorium A/S			
B13	GB 2,233,665 A	01-16-91	Rohm GmbH			
B14	GB 2,250,289	06-03-92	Rohm GmbH			
B15	JP 04-327274 A	11-16-92	Unitika Ltd.			
B16	WO 88/06623	09-07-88	Gist-Brocades N.V.			
B17	WO 88/09367	12-01-88	Genencor, Inc.			
B18	WO 89/04552	18-05-89	LSI Logic Corporation			
B19	WO 90/09446	08-23-90	Plant Genetics Systems, N.V.			
B20	WO 90/12118	10-18-90	Novo-Nordisk A/S			
B21	WO 91/16422	10-31-91	Kali-Chemie Aktiengesellschaft			

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Page 4 of 7	Date of this Submission: August 18, 2008

Examiner's Initials	Document Number	Publication or Grant Date	Name of Applicant or Patentee	Class	Sub-Class	Translation Yes/No
B22	WO 92/05249	04-02-92	Novo Nordisk A/S			
B23	WO 92/21760	12-10-92	Cognis, Inc.			
B24	WO 94/12621	06-09-94	Novo Nordisk			
B25	WO 94/25576	11-10-94	Novo Nordisk A/S			
B26	WO 95/01426	01-12-95	Novo Nordisk A/S			
B27	WO 95/23221	08-31-95	Cognis, Inc.			
B28	WO 96/110646	11-04-96	Tryggvason, Karl et al.			
B29	WO 96/11285	04-18-96	Novo Nordisk A/S			
B30	WO 96/34946	11-07-96	Novo Nordisk A/S			
B31	WO 97/07770	03-06-97	Henkel Kommanditgesellschaft Auf Aktien			
B32	WO 98/22500	05-28-98	CorTherapeutics, Inc.			
B33	WO 99/34011	07-08-99	Genecor International, Inc.			
B34	WO 00/32601	06-08-00	The Procter & Gamble Company			
B35	WO 01/58276 A2	08-16-01	F Hoffmann-La Roche AG			
B36	WO 02/14490	02-21-02	Genencor International, Inc.			
B37	WO 02/50245 A2	06-27-02	Genencor International, Inc.			
B38	WO 02/055717 A2	07-18-02	Genencor International, Inc.			
B39	WO 03/008650A1	01-30-03	Insect Biotech Co. Ltd.			

## OTHER DOCUMENTS

Examiner's Initials	
C1	Altschul, S. et al., "Local Alignment Statistics," <i>Meth. Enzymol.</i> 266:460-480, 1996.
C2	Altschul, S. et al., "Basic Local Alignment Search Tool," <i>J. Mol. Biol.</i> 215:403-410, 1990.
C3	Beaucage S. et al., "Deoxynucleoside Phosphoramidites-a new class of key intermediates for Deoxypolynucleotide Synthesis" <i>Tetrahedron Lett.</i> 22(20):1859-1862, 1981.
C4	Benton, W. et al., "Screening Agt Recombinant Clones by Hybridization to Single Plaques in situ," <i>Science</i> 196(4286):180-182, 1977.
C5	Cerny, G. "Method for the Distinction of Gramnegative from Grampositive Bacteria," <i>Eur. J. Appl. Microbiol.</i> 3:223-225, 1976.
C6	Cerny, G. "Studies on the Aminopeptidase Test for the Distinction of Gram-Negative from Gram-Positive Bacteria," <i>Eur. J. Appl. Microbiol.</i> , 5:113-122, 1976.

Examiner	Date Considered
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GC819-2-US/B 1449

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## INFORMATION DISCLOSURE CITATION

10576331 - GAU: 1652

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Filing Date: July 18, 2007	Art Unit: 1632
Page 5 of 7	Date of this Submission: August 18, 2008

Examiner's Initials	
C7	Chamberlin, M. et al., "New RNA Polymerase from Escherichia coli infected with Bacteriophage T7," <i>Nature</i> 228:227-231, 1970.
C8	Christianson, T. et al., "Peptide Mapping of Subtilisins as a Practical Tool for Locating Protein Sequence Errors during Extensive Protein Engineering Projects," <i>Anal. Biochem.</i> 223:11929, 1994.
C9	Collins, M. "Isoprenoid Quinone Analyses in Bacterial Classification and Identification," in Goodfellow, M. et al., (eds), <i>Chemical Methods in Bacterial Systematics</i> , London: Academic Press, pp. 267-287, 1985.
C10	Collins, M. et al., "Distribution of Isoprenoid Quinone Structural Types in Bacteria and Their Taxonomic Implications," <i>Microbiol. Rev.</i> 45(2):316-354, 1981.
C11	Dartois, V. et al., "Cloning, nucleotide sequence and expression in Escherichia coli of a lipase gene from Bacillus subtilis 168," <i>Biochem. Biophys. Acta</i> 1131:253-260, 1992.
C12	Del Mar, E. et al., "A Sensitive New Substrate for Chymotrypsin," <i>Anal. Biochem.</i> , 99:316-320, 1979.
C13	Devereux, J. et al., "A comprehensive set of sequence analysis programs for the VAX," <i>Nucl. Acids Res.</i> 12(1):387-395, 1984.
C14	Dussault, H.P. "An improved technique for staining red halophilic bacteria," <i>J. Bacteriol.</i> 70:484-485, 1955.
C15	Felsenstein J. "Confidence Limits on Phylogenies: An Approach Using the Bootstrap," <i>Evol.</i> 39(4):783-789, 1985.
C16	Feng, D.-F. et al., "Progressive Sequence Alignment as a Prerequisite to Correct Phylogenetic Trees," <i>J. Mol. Evol.</i> 25:351-360, 1987.
C17	Fernandez-Abalos, J. et al., "Posttranslational processing of the xylanase Xys1L from Streptomyces halstedii JMB is carried out by secreted serine proteases," <i>Microbiol.</i> 149:1623-1632, 2003.
C18	Ferrari, E. et al., "Genetics," in Hardwood et al, (eds.), <i>Bacillus</i> , New York: Plenum Publishing Corp., pp. 57-72, 1989.
C19	Gregersen, T. "Rapid Method for Distinction of Gram-Negative from Gram-Positive Bacteria," <i>Eur. J. Appl. Microbiol. Biotechnol.</i> , 5:123-127, 1978.
C20	Grunstein, M. et al., "Colony Hybridization: A method for the isolation of cloned DNAs that contain a specific gene," <i>Proc. Natl. Acad. Sci. USA</i> , 72(10):3961-3965, 1975.
C21	Guerout-Flcury, A.-M. et al., "Antibiotic-resistance cassettes for Bacillus subtilis," <i>Gene</i> 167:335-336, 1995.
C22	Haas, M. et al., "Cloning, expression and characterization of a cDNA encoding a lipase from Rhizopus delemar," <i>Gene</i> 109:107-113, 1991.
C23	Halebian, S. et al., "Rapid Method That Aids in Distinguishing Gram-Positive from Gram-Negative Anaerobic Bacteria," <i>J. Clin. Microbiol.</i> , 13(3):444-448, 1981.
C24	Henikoff, S. et al., "Amino acid substitution matrices from protein blocks," <i>Proc. Natl. Acad. Sci.</i> , 89:10915-10919, 1992.
C25	Higgins, Desmond et al., "Fast and sensitive multiple sequence alignments on a microcomputer," <i>CABIOS Comm.</i> , 5(2):151-153, 1989.
C26	Hong, S.:XP002327071 retrieved from EBI Database accession no. AF515832 abstract, Database EMBL 'Online' (20 June 2002).

Examiner	Date Considered
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Page 6 of 7	Date of this Submission: August 18, 2008

Examiner's Initials	
C27	Jukes T. et al., "Evolution of protein molecules," in Munro, H. (ed.), <i>Mammalian Protein Metabolism</i> , New York: Academic Press, pp. 21-132, 1969.
C28	Kacian, D. et al., "A Replicating RNA Molecule Suitable for a Detailed Analysis of Extracellular Evolution and Replication," <i>Proc. Natl. Acad. Sci. USA</i> , 69(10):3038-3042, 1972.
C29	Kalisz, H. "Microbial Proteinases," in Fiechter, A. et al., (eds.), <i>Advances in Biochemical Engineering/Biotechnology</i> , vol. 36, pp. 1-65, 1988.
C30	Karlin, S. et al., "Applications and statistics for multiple high-scoring segments in molecular sequences," <i>Proc. Natl. Acad. Sci. USA</i> 90:5873-5877, 1993.
C31	Kraut, J. "Serine Proteases: Structure and Mechanism of Catalysis," <i>Ann. Rev. Biochem.</i> 46:331-358, 1977.
C32	Kugimiya, W. et al., "Cloning and Sequence Analysis of cDNA encoding Rhizopus niveus Lipase," <i>Biosci. Biotech. Biochem.</i> , 56(5):716-719, 1992.
C33	Lao, G. et al. "Cloning, Sequencing, and Expression of a Thermomonospora fusca Protease Gene in Streptomyces lividans," <i>Appl. Environ. Microbiol.</i> , 62(11):4256-4259, 1996.
C34	Lee, Y.-C. et al., "Requirement of a COOH-terminal pro-sequence for the extracellular secretion of aqualysin I (a thermophilic subtilisin-type protease) in <i>Thermus thermophilus</i> ," <i>FEMS Microbiol. Lett.</i> , 120:69-74, 1994.
C35	Longshaw, C. et al., "Kytococcus sedentarius, the organism associated with pitted keratolysis, produces two keratin-degrading enzymes," <i>J. Appl. Microbiol.</i> 93(5):810-816, 2002.
C36	Matthes, Hans et al., "Simultaneous rapid chemical synthesis of over one hundred oligonucleotides on a microscale," <i>EMBO J.</i> , 3(4):801-805, 1984.
C37	Mine, O. et al., "Use of degenerate primers and heat-soaked polymerase chain reaction (PCR) to clone a serine protease antigen from <i>Dermatophilus congolensis</i> ," <i>Immunol. Cell Biol.</i> , 75(5):484-491, 1997.
C38	Needham-VanDevanter, D. et al., "Characterization of an adduct between CC-1065 and a defined oligodeoxynucleotide duplex," <i>Nucl. Acids Res.</i> , 12(15):6159-6168, 1984.
C39	Needleman, S. et al., "A General Method Applicable to the Search for Similarities in the Amino Acid Sequence of Two Proteins," <i>J. Mol. Biol.</i> , 48:443-453, 1970.
C40	Oledzka, G. et al., "High-level expression, secretion, and purification of the thermostable aqualysin I from <i>Thermus aquaticus</i> YT-1 in <i>Pichia pastoris</i> ," <i>Protein Expr. Purific.</i> , 29:223-229, 2003.
C41	Palmeros, B. et al., "A family of removable cassettes designed to obtain antibiotic-resistance-free genomic modifications of <i>Escherichia coli</i> and other bacteria," <i>Gene</i> , 247:255-264, 2000.
C42	Pearson, W. et al., "Improved tools for biological sequence comparison," <i>Proc. Natl. Acad. Sci.</i> , 85:2444-2448, 1988.
C43	Raoult, D. et al., Database NCBI 'Online', XP002327070, Database accession no. AA044722 abstract (11 August 2003).
C44	Sackin, M. "Computer Programs for Classification and Identification," <i>Meth. Microbiol.</i> , 19:459-494, 1987.
C45	Saeki, K. et al., "Purification and characterization of an alkaline protease from <i>Oerskovia xanthineolytica</i> TK-1," <i>J. Ferment. Bioeng.</i> , 77(5):554-556, 1994.
C46	Saitou, Naruya et al., "The Neighbor-joining Method: A New Method for Reconstructing Phylogenetic Trees," <i>Mol. Biol. Evol.</i> , 4(4):406-425, 1987.

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Page 7 of 7	Date of this Submission: August 18, 2008

Examiner's Initials	
C47	Sakamoto, S. et al., "Efficient Production of Thermus protease aqualysin I in Escherichia coli: effects of cloned gene structure and two-stage culture," <i>Appl. Microbiol. Biotechnol.</i> , 45:94-101, 1996.
C48	Sakamoto, S. et al., "Expression of Aqualysin I (a Thermophilic Protease) in Soluble Form in Escherichia coli under a Bacteriophage T7 Promoter," <i>Biosci. Biotechnol. Biochem.</i> , 59(8):1438-1443, 1995.
C49	Sambrook, J. et al., "Molecular Cloning: A Laboratory Manual", Second Ed., Plainview, NY: Cold Spring Harbor Laboratory Press, pp. 16.7-16.8, 1989.
C50	Segalas, I. et al., "A particularly labile Asp-Pro bond in the green mamba muscarinic toxin MTX2. Effect of protein conformation on the rate of cleavage," <i>FEBS Lett.</i> , 371:171-175, 1995.
C51	Shaw A. et al., "A Novel Combination of Two Classic Catalytic Schemes," <i>J. Mol. Biol.</i> , 320:303-309, 2002.
C52	Shimada, Y. et al., "cDNA Molecular Cloning of Geotrichum candidum Lipase," <i>J. Biochem.</i> , 106:383-388, 1989.
C53	Shimoi, H. et al., "Molecular structure of Rarobacter faecitabidus protease I: A yeast-lytic serine protease having mannose-binding activity," <i>J. Biol. Chem.</i> , 267(35):25189-25195, 1992.
C54	Smith, T. et al., "Comparison of Biosequences," <i>Adv. Appl. Math.</i> , 2:482-489, 1981.
C55	Sneath, P. et al., "The Estimation of Taxonomic Resemblance," in Sneath, P. et al., <i>Numerical Taxonomy</i> , San Francisco: W.H. Freeman & Co., pp. 114-187, 1973.
C56	Stroud, R. "A Family of Protein-Cutting Proteins," <i>Sci. Amer.</i> , 131:74-88, 1974.
C57	Trieu-Cuot, P. et al., "Nucleotide sequence of the Streptococcus faecalis plasmid gene encoding the 3'5' - aminoglycoside phosphotransferase type III," <i>Gene</i> , 23:331-341, 1983.
C58	Van de Peer, Y. et al., "Treecon for Windows: a software package for the construction and drawing of evolutionary trees for the Microsoft Windows environment," <i>CABIOS Comput. Appl. Biosci.</i> , 10(5):569 - 570, 1994.
C59	Van der Laan, J. et al., "Cloning, Characterization, and Multiple Chromosomal Integration of a Bacillus Alkaline Protease Gene," <i>Appl. Environ. Microbiol.</i> 57(4):901-909, 1991.
C60	Voskuil, M. et al., "The - 16 region, a vital sequence for the utilization of a promoter in Bacillus subtilis and Escherichia coli," <i>Mol. Microbiol.</i> 17(2):271-279, 1995.
C61	Wu, D. et al., "The Ligation Amplification Reaction (LAR) - Amplification of Specific DNA Sequences Using Sequential Rounds of Template-Dependent Ligation," <i>Genomics</i> , 4:560-569, 1989.
C62	Yamaguchi, S. et al., "Cloning and structure of the mono- and diacylglycerol lipase-encoding gene from Penicillium camembertii U-150," <i>Gene</i> , 103:61-67, 1991.

Examiner	Date Considered
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